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ABSTRACT

The Job Network Center of Georgia Southern College provided assistance to the Grinnell Corporation in a partnership agreement addressing illiteracy within Grinnell's work force. A self-contained, modularized curriculum was used to facilitate monitoring of participants' progress and compensating employees for achievement. Other businesses were recruited to participate, but declined, although three Job Training Partnership Act classes did participate in the project. Initial projections for the number of participants in the literacy education program were not reached. A total of 516 employees were screened and 150 completed instruction. Reading and math scores showed gains for all four participant groups. (Appendix A provides database records including pre- and post-test scores for participants. Appendix B is an inventory of hardware and software acquired for use in the literacy learning laboratory created by the project.) (CML)

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FINAL PERFORMANCE REPORT

USDE Project No. V198A80196-88

A Public/Private Sector Partnership for Adult Literacy Education in a Rural Environment

prepared by

Dr. Michael C. McKenna, Project Director

Submitted June, 1990

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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FINAL PERFORMANCE REPORT
USDE PROJECT NO. V198A80196-88

This report details the extent to which objectives of the approved application were in fact accomplished over the entire 18-month duration of the project, from October 1, 1988, to March 31, 1990. Where appropriate, the accomplishment of objectives relative to target dates is discussed. Detailed demographic information is also provided regarding the clientele served by the project. Finally, descriptions of dissemination and evaluation activities and an account of key personnel changes are provided. This information and its organizational format are designed to conform to the written request of Nancy Smith Brooks, Program Officer, National Workplace Literacy, expressed in an undated letter.

I. COMPARISON OF ACTUAL ACCOMPLISHMENTS WITH OBJECTIVES

The approved application specified eight major objectives, the fourth of which comprised five parts. The original numeration and wordings are retained.

Objective 1. The Job Network Center [hereinafter, JNC] of Georgia Southern College, the designated applicant of the partnership, will provide assistance to Grinnell Corporation in a partnership agreement in addressing illiteracy within their workforce.

The agreement between Grinnell and Georgia Southern, appended to the approved application, outlined specific steps to be taken by each partner upon the approval of funding. All of these steps were taken.

On Grinnell's part, four interactive video stations were purchased at a cost, borne by Grinnell, of approximately $50,000. A room measuring 19 feet by 40 feet was set aside in the Grinnell plant for use by project participants. Initial preparation costs for this room totaled approximately $30,000. In addition, the company's estimate of its 18-month costs incurred in the use and upkeep of this facility is $615,600, based on a fair-market value of $45 per square foot per month. The company then aggressively solicited participants by internally publicizing the nature of the program and establishing a policy of compensating employees for successful completion of instructional modules at a rate of $5 to $6 per hour.

A self-contained, modularized curriculum was selected jointly by Grinnell and project staff. A modular approach facilitated (1) monitoring of participants' progress and (2) compensating employees for achievement. To coordinate the operation at Grinnell, Mr. Richard Hutcheson was designated to serve in this capacity. Approximately three hours per day of Mr. Hutcheson's time, valued at $17.25 per hour, was devoted to the project. In addition to on-site management of participant records, Mr. Hutcheson also supplied the project with data related to improved productivity and professional advancement of participants. These data are referenced later in this report.

Objective 2. The JNC will expand the partnership between education and other business/industries through new agreements assuring supportive services to participants from employers to diminish barriers to education (transportation, child care costs, etc.).

The initial business partnership agreement, with Grinnell Corporation, was used as a model for other partners. Attempts to develop additional agreements met with varying degrees of success. However, most prospective organizations found prohibitive the costs likely to be involved in salary incentives, on-site facility development, and employee support services such as transportation and child care. The following organizations expressed an interest in the project during the period of the grant.

Georgia Southern College. Classified employees were notified by the GSC Personnel Department of the availability of services. However, project activities were not given approved status by GSC, and employees were neither reimbursed nor afforded leave time for literacy activities. Nevertheless, a total of 16 GSC employees visited the JNC and progressed to various points in their prescribed programs. One successfully completed the GED.

Brooks Instruments. Discussions were held with Brooks Instruments Corporation, a local manufacturer of gas meters and related equipment. No agreement was reached despite an initial expression of interest. The company's management did not, in the final analysis, predict a sufficient cost-benefit ratio to warrant entering into an agreement.

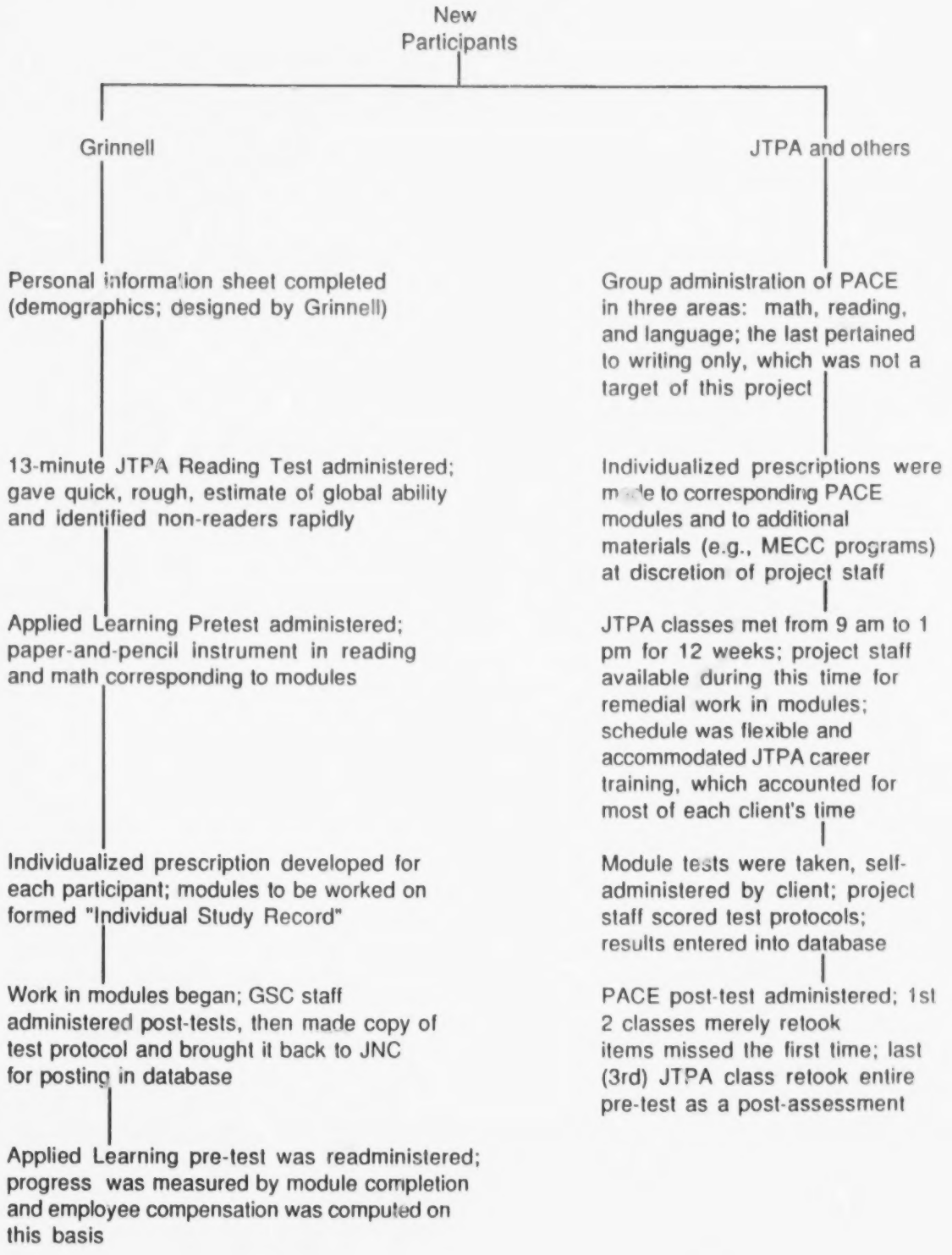
Cooper Tools. Relatively strong interest, and an open acknowledgement of a workplace literacy problem, was expressed by Cooper Tools, a local subsidiary of Cooper Industries and manufacturer of an assortment of hand tools. As an initial move towards active participation, the company sponsored plant-wide testing of its employees. On September 24, 1988, and October 29, 1988, a total of 228 individuals were given the Test of Adult Basic Education (TABE) at Swainsboro Technical Institute, Swainsboro, Georgia. Results of this testing were copied for project staff in anticipation of an agreement. While the company publicized the availability of services at the JNC, it stopped short of underwriting an on-site learning lab or offering salary incentives to employees. However, renewed interest in an agreement was expressed by management in March, 1990, when the prospects of continued funding were viable.

Statesboro Chamber of Commerce. In an effort to make literacy services available to the employees of small businesses, an "umbrella" agreement was entered into by the JNC and the Chamber of Commerce of Statesboro, Georgia. This arrangement made the use of JNC facilities allowable for the employees of Chamber members. Expectably, no single member business had (or was willing to expend) the resources needed to establish an on-site facility. Announcements at Chamber meetings served to publicize the availability of services at the JNC. Only one individual from any member of the Statesboro Chamber of Commerce (other than those with whom separate agreements had been sought) visited the JNC.

Objective 3. Implement an effective participant assessment plan, individualized prescriptions service, educational counseling program, on-going evaluation of participant mastery, and an efficient management plan and record-keeping activity.

Two separate diagnostic/prescriptive systems were developed in order to monitor and instruct two categories of clients: (1) employees of Grinnell, receiving instruction largely on the premises of the corporation; and (2) all other clients, but especially JTPA participants, receiving instruction at the JNC. A system tailored to Grinnell's needs included the use of Applied Learning modules, which were part of a more comprehensive system of materials, comprising higher-level modules in areas such as electronics as well. A flowchart delineating each system appears on the following page.

A relative strength of the project was the thoroughness and detail of the computerized database system used to monitor participant progress. An end-of-project summary was generated from this database and is included in this report as Appendix A. (This output has been reduced to an 8 1/2-by-11-inch format.)


New Participants
Grinnell
JTPA and others
Personal information sheet completed (demographics; designed by Grinnell)
13-minute JTPA Reading Test administered; gave quick, rough, estimate of global ability and identified non-readers rapidly
Applied Learning Pretest administered; paper-and-pencil instrument in reading and math corresponding to modules
Individualized prescription developed for each participant; modules to be worked on formed "Individual Study Record"
Work in modules began; GSC staff administered post-tests, then made copy of test protocol and brought it back to JNC for posting in database
Applied Learning pre-test was readministered; progress was measured by module completion and employee compensation was computed on this basis
Group administration of PACE in three areas: math, reading, and language; the last pertained to writing only, which was not a target of this project
Individualized prescriptions were made to corresponding PACE modules and to additional materials (e.g., MECC programs) at discretion of project staff
JTPA classes met from 9 am to 1 pm for 12 weeks; project staff available during this time for remedial work in modules; schedule was flexible and accommodated JTPA career training, which accounted for most of each client's time
Module tests were taken, self-administered by client; project staff scored test protocols; results entered into database
PACE post-test administered; 1st 2 classes merely retook items missed the first time; last (3rd) JTPA class retook entire pre-test as a post-assessment

Objective 4. Execute a successful and realistic literacy education program for approximately 650 participants.

This objective has in essence two components: The success of the instruction delivered and the numbers of participants reached.

With regard to the achievement of participants, four groups are considered here independently. These include the three JTPA classes served by the project and the Grinnell employees who completed their prescribed modular programs. Means and standard deviations of pre and post scores are reported in Tables 1-4. Also included are statistical comparisons of the pre and post means.

For all four groups, sizeable positive differences were observed, one of the most notable results of the project. Not only were all comparisons statistically significant ($p < .001$), but a consideration of effect size was consistently impressive. In all 8 cases (reading and math for the four groups), mean gains were invariably more than one standard deviation. These findings support the effectiveness of the diagnostic/prescriptive process and of the instruction prescribed through that process.

It should be noted that, for the first two of the three JTPA classes, participants were asked to retake only the items they had missed during pre-testing. This policy was established to minimize the testing demands placed on participants. The fact that it was a psychometrically questionable approach to program evaluation led to the abandonment of the policy for the third (and last) JTPA class served by the project. The results for this class nevertheless document an impressive average gain in both reading and math.

With regard to the number of participants involved in the project, initial projections were not reached. Table 5 details the number initially screened and those who ultimately continued with the instruction to its completion.

Table 1. Pre/post comparisons for Grinnell participants who completed their program of study (Applied Learning)

		Pre		Post			
	N	M	SD	M	SD	t	Significance
Reading	35	66.1	11.3	88.3	5.5	10.6	.001
Math	29	74.5	11.1	93.2	3.1	9.8	.001

Table 2. Pre/post comparisons for Fall 1988 JTPA class (PACE)

		Pre		Post			
	N	M	SD	M	SD	t	Significance
Reading	36	65.0	13.3	79.0	11.2	14.7	.001
Math	36	53.2	15.5	73.2	16.0	16.2	.001

Table 3. Pre/post comparisons for Spring 1989 JTPA class (PACE)

		Pre		Post			
	N	M	SD	M	SD	t	Significance
Reading	35	72.1	13.0	89.0	7.6	10.6	.001
Math	35	64.7	16.3	84.1	12.0	14.6	.001

Table 4. Pre/post comparisons for Fall 1989 JTPA class (PACE)

		Pre		Post			
	N	M	SD	M	SD	t	Significance
Reading	33	66.9	17.0	84.0	10.6	8.1	.001
Math	33	58.5	15.5	80.2	12.8	12.7	.001

Table 5. Number of participants served by the project

Client	Employees screened	Employees completing prescribed instruction
JTPA	114	114
Grinnell	157	36
GSC	16	0
Cooper/Tools	228	0
Brooks Instruments	1	0
Totals	516	150

Objective 4a. The program will provide basic literacy training to participants within a reasonable and just time for intensive services.

The two large groups of clients served by the project were subject different time frames. JTPA participants, 104 in all, received all of their instruction in the 14-week framework mandated by the JTPA training schedule. Interaction with project staff during this interval was adequate to produce impressive gains in achievement, documented above.

For the Grinnell participants, the timeframe was much less structured since employees worked at their own rate, after hours. Of the 36 employees who completed all modules of their prescribed programs, the mean length of time required was 2.18 months to complete an average of 3 modules (2 in reading and 1 in math). The less-structured timeframe may have curtailed achievement, in that 112 employees failed to complete their prescribed programs. (A total of 9 Grinnell employees were exempted from all modules based on their pre-test performance.)

Objective 4b. The program will provide secondary basic skills to participants with the pre-tested ability level to satisfactorily meet the requirements for a general high school equivalency examination.

This objective was addressed in two principal ways. First, the selection of curricular materials for use at Grinnell served to establish a wide range of instruction, from beginning reading and math to relatively advanced applications, such as electronics. Project instructors, whose chief involvement was with low-functioning participants, were also available at the Grinnell site to assist with upper-level coursework. It should be noted, however, that such assistance was not often needed due to the tutorial nature of the software used and to the functional literacy levels of the participants using that software.

The second means of providing higher-level instruction where needed was through the linkage between the project and JTPA participants. Most of these persons were relatively high functioning and the remedial aspects of their prescribed programs were appropriate to their needs. The wide array of materials available at the JNC facilitated this differentiation of instruction.

Objective 4c. The program will serve as an educational resource to project partnerships in materials selection for upgrading or updating skills necessary for specific technological skills, processes, and/or new product lines.

The only project partner to enter into a formal materials selection process was Grinnell. Assistance was provided in choosing both software and hardware during the initial set-up phase of the Grinnell site. Other project participants used materials acquired for use at the JNC. These materials were acquired without a specific partner in mind.

Objective 4d. The program will address the areas of identified need to improve competencies in speaking, listening, reasoning, problem-solving, and work adaptability skills.

Software selection, particularly in conjunction with interactive video technology, was undertaken with the aim of integrating skills development in more than a single area. Thus, participants regularly listened, observed, and read while problem-solving and reasoning skills

were targeted. Likewise, they conversed with project instructors and applied reasoning skills while inferential reading comprehension was targeted.

In addition, remedial tutoring provided to JTPA participants was quite varied. It focused on all of the skill areas mentioned in Objective 4d, though always on a prescribed basis. (See also Objective 5, below.)

Objective 4e. The program will provide appropriate accommodations for accessibility needed in the individual prescription for limited English speaking, handicapping conditions, or other barriers to successful learning.

In fact, virtually no participants of limited English proficiency were involved in the project due to the demographics of the region. Both of the instructional sites (Grinnell and the JNC) were the products of barrier-free construction although no physically handicapped individuals were ultimately involved as participants.

Objective 5. Equip and upgrade a central literacy training/learning lab with appropriate software and materials necessary to adequately serve the designated population.

A complete inventory of hardware and software available to the project apppears in Appendix B. Some of these resources were acquired prior to the project period, but most were acquired through the project.

Objective 6. Upgrade the learning center in Grinnell Corporation to more adequately begin to serve 565 planned workers.

While the actual number of Grinnell participants did not reach 565, the laboratory at the Grinnell site was equipped with four interactive video systems and the entire inventory of Applied Learning courseware. The facility was subdivided into study carrels, some equipped with microcomputers and some reserved for work in manuals, test-taking, etc. For a detailed description of the size of this facility, see the discussion of Objective 1.

Objective 7. Provide partial salary compensation for the designated employee of Grinnell Corporation managing the learning center, participants, and record-keeping required by the project. New partnerships will be negotiated based on grant funding.

The involvement of Grinnell's Richard Hutcheson has been described above (see Objective 1.)

The search for partnerships beyond Grinnell has involved a number of contacts outlined previously in the discussion of Objective 2. In addition to these other partners, good faith interest in a partnership had been expressed by Gulfstream Aerospace of Savannah just prior to the termination of the project.

Objective 8. Provide on-going project program and financial monitoring in compliance with federal reporting requirements and timelines.

All required reports, including this final performance report, a final financial status report, and an external evaluation report have been filed or are being prepared at this writing.

II. SCHEDULE OF ACCOMPLISHMENTS

Because the application did not contain a schedule for the accomplishment of objectives, each objective has been discussed above in terms of the extent to which it was accomplished by the end of the project.

While most of the objectives were met, the single greatest instance of slippage was in the matter of securing new partners and in reaching the project's goal of some 650 total participants. It should be noted, however, that active talks were proceeding with Gulfstream Aerospace at the time the project ended, an employer of more than 2,000.

One innovative technique was developed in an attempt to increase the number of participants. This involved including the Statesboro Chamber of Commerce as a partner with the idea of serving member businesses that were too small to become partners in their own right (see discussion of Objective 2).

III. NUMBER AND CHARACTERISTICS OF PARTICIPANTS

Table 6 delineates by ethnic origin those who participated in the project.

Table 6. Participants by partnership and ethnic origin

Ethnic group	Partner		
	Grinnell	JTPA	GSC
American Indian or Alaskan	0	0	0
Asian or Pacific Islander	0	0	0
Black	54	88	16
Hispanic	0	0	0
White	103	16	0

IV DISSEMINATION ACTIVITIES

Area businesses that were regarded as potential partners were contacted by mail, by telephone, and by personal contact in an effort to establish new parterships. This effort involved disseminating news of the project's success with Grinnell and JTPA participants. Prospective partners were invited to tour the facilities at Grinnell and at the JNC in order to observe project activities firsthand. Major businesses that were receptive to contacts included (1)Brunswick College, Brunswick, Georgia; (2) Nekoosa Paper/Georgia Pacific, Valdosta Georgia; (3) Fort Howard Paper Company, Effingham County, Georgia; and (4) Gulfstream Aerospace Corporation, Savannah, Georgia.

Dissemination also included presentations to groups of businesspersons. Most notably, these talks included (1) the JTPA PIC Council meeting in Atlanta, July, 1989, and (2) the Statesboro Chamber of Commerce, February, 1990.

V EVALUATION ACTIVITIES

Summative evaluation was of two kinds: (1) the development of this report and (2) the preparation of an independent report by an outside evaluator.

Formative evaluation comprised numerous ongoing activities to monitor the success of the project. These included (1)maintenance of monthly instructor logs; (2) establishment of a computer database containing the records of achievement and prescriptions for all project participants (see Appendix A); (3) regular review of software to determine its effectiveness and any need for modification or replacement; and (4) continued contact with Rick Hutcheson, the Grinnell coordinator.

VI. CHANGES IN KEY PERSONNEL

The only key change in personnel involved replacement of Sue Fleuren, project director, with Dr. Michael McKenna in February, 1990.

APPENDIX A

End-of-Project Database Records for Participants

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	1			5/89	5/89	0	1	1	0	1	67	0	1	1	0	1		0	1	0	1	72	0	1	0	1
1	2			5/89	5/89	0	0	1	0	0	82	0	1	87	0	0	97	0	1	0	1	58	0	1	0	1
1	3			3/89	9/89	1	1	1	0	1	42	75	53/84	93	0	82	90	0	1	0	1	53	0	1	0	1
0	4			2/89	4/89	0	1	1	0	0	78	0	100	100	0	0	78	0	0	0	1	83	0	0	0	94
1	5			5/89	5/89	1	0	0	0	0	75	1	0	0	0	0		0	0	0	0	94	0	0	0	0
0	6			6/89	12/89	1	1	1	0	1	53	100	94	100	0	93	97	0	1	0	0	69	0	100	0	84
1	7			5/89	5/89	1	1	0	0	1	64	1	1	0	0	1		0	0	0	1	78	0	0	0	1
1	8			5/89	5/89	0	0	0	0	0	84	0	0	0	0	0	NA	0	1	0	1	64	0	1	0	1
0	9			9/89	9/89	0	0	0	0	0	84	0	0	0	0	0	NA	0	0	0	0	97	0	0	0	0
1	10			9/89	9/89	1	1	1	1	1	NO DATA	1	1	1	1	1		0	0	1	1	67	0	0	1	1
0	11			5/89	2/90	1	0	1	1	1	56	100	0	87	100	87	93	0	1	0	1	64	0	55,100	0	95
0	12			10/89	10/89	0	0	0	0	0	89	0	0	0	0	0	NA	0	0	0	0	94	0	0	0	0
*	13			9/89	9/89	0	0	0	0	1	67	0	0	0	0	1		0	1	0	1	89	0	1	0	1
1	14			3/89	8/89	0	1	1	0	0	64	0	87	1	0	0		0	1	0	1	89	0	90	0	1
0	15			8/89	9/89	0	1	1	0	1	56	0	100	93	0	100	87	0	1	0	1	78	0	100	0	76
1	16			5/89	7/89	1	1	1	1	1	44	70	93	1	1	1		0	1	1	1	42	0	1	1	1
0	17			7/89	1/90	0	0	1	0	1	77	0	0	100	0	87	90	0	0	0	0	91	0	0	0	0
0	18			5/89	5/89	0	0	0	0	0	87	0	0	0	0	0	NA	0	0	0	0	100	0	0	0	0
1	19			6/89	7/89	1	1	0	0	0	87	100	93	0	0	0	99	0	0	0	1	78	0	0	0	1
0	20			2/89	4/89	1	1	1	0	0	60	100	93	87	0	0	91	0	1	0	0	81	0	100	0	0
1	21			5/89	5/89	1	1	1	0	0	60	1	1	1	0	0		0	1	0	1	81	0	1	0	1
1	22			9/89	9/89	1	1	1	1	1	56	1	1	1	1	1		1	1	1	1	NO DATA	1	1	1	1
1	23			9/89	9/89	1	1	0	0	1	47	1	1	0	0	1		0	1	1	1	47	0	1	1	1
1	24			10/89	10/89	1	1	1	1	1	NO DATA	1	1	1	1	1		1	1	1	1		1	1	1	1
0	25			5/89	5/89	0	1	1	0	1	89	0	93	93	0	100	96	0	0	0	0	86	0	0	0	0
0	26			3/89	7/89	1	1	1	1	1	58	100	93	100	80	87	92	0	1	0	1	81	0	89	0	81
1	27			5/89	2/90	1	1	1	1	1	42	92	1	1	1	1		1	1	1	1	22	1	1	1	1
0	28			5/89	5/89	0	0	0	0	0	87	0	0	0	0	0	NA	0	0	0	0	89	0	0	0	0
1	29			5/89	5/89	1	1	1	0	1	44	1	1	1	0	1		0	1	0	1	81	0	1	0	1
1	30			5/89	5/89	1	1	1	0	0	47	1	1	1	0	0		0	1	0	1	64	0	1	0	1
0	31			5/89	5/89	0	0	0	0	1	78	0	0	0	0	100	91	0	0	0	0	89	0	0	0	0
0	32			2/89	2/89	1	0	0	0	0	82	0	0	0	0	0	NA	0	0	0	0	97	0	0	0	0
0	33			2/89	4/89	1	0	1	0	1	58	100	0	87	0	100	83	0	1	0	1	83	0	100	90	94
1	34			5/89	5/89	0	0	1	0	1	67	0	0	1	0	1		0	1	0	1	86	0	1	0	1
1	35			5/89	5/89	0	0	0	0	1	76	0	0	0	0	1		0	1	0	1	81	0	1	0	1
1	36			4/89	4/89	0	0	1	0	1	71	0	0	100	0	87	86	0	0	0	1	83	0	0	0	1
1	37			9/89	9/89	0	1	1	0	0	89	0	1	1	0	0		0	0	0	1	78	0	0	0	1
1	38			1/89	1/89	0	1	0	0	1	67	0	80	0	0	80	79	0	1	1	1	58	0	1	1	1

March 26, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	39			5/89	5/89	0	0	1	0	0	73'	0	0	1	0	0		0	1	0	1	75	0	1	0	1
1	40			1/89	1/89	1	0	1	0	1	62	83	0	87	0	87	84	0	1	0	1	61	0	50/56/83	0	1
1	41			3/89	10/89	0	1	0	0	1	64	0	1	0	0	1		0	1	0	1	69	0	94	0	1
1	42			8/89	10/89	0	0	0	0	1	82	0	0	0	0	1		0	0	0	0	94	0	0	0	0
0	43			3/89	7/89	1	0	0	0	1	64	92	0	0	0	66/70	77	0	0	0	0	86	0	0	0	0
0	44			8/89	8/89	0	1	0	0	0	73	0	85	0	0	0	97	0	1	0	0	78	0	100	0	8
0	45			1/89	1/89	0	0	1	0	0	76	0	70	100	0	70	92	0	1	0	1	72	0	94	0	8
1	46			5/89	5/89	1	1	1	0	1	51	1	1	1	0	1		1	1	1	1	28	1	1	1	1
0	47			7/89	8/89	0	1	1	0	0	67	0	93	87	0	0	84	0	0	0	1	75	0	0	0	9
1	48			9/89	10/89	1	1	0	1	1	51	83	87	0	80	87	83	0	1	0	1	61	1	61	1	0
1	49			5/89	2/90	0	1	1	1	1	53	0	93	1	1	1		0	1	0	0	83	0	1	0	0
1	50			9/89	10/89	1	0	1	0	1	56	1	0	1	0	1		0	1	1	1	36	0	1	1	1
1	51			5/89	5/89	0	1	0	0	0	76	0	1	0	0	0		0	1	0	0	94	0	1	0	0
1	52			9/89	9/89	1	0	0	0	1	73	1	0	0	0	1		0	0	0	1	72	0	0	0	1
1	53			9/89	9/89	1	1	1	1	1	22	75	67/104	1	1	1		1	1	1	1	25	1	1	1	1
1	54			5/89	5/89	0	1	1	0	1	69	0	1	1	0	1		0	0	0	0	60	0	0	0	0
0	55			5/89	11/89	1	1	1	0	1	58	92	93	93	0	73	90	0	0	0	0	89	0	0	0	0
1	56			4/89	6/89	1	0	1	0	0	56	82	0	80	0	0	77	0	1	0	1	58	0	89	0	1
1	57			9/89	9/89	1	0	0	0	0	78	1	0	0	0	0		0	0	0	1	78	0	0	0	1
1	58			3/89	4/89	1	1	1	1	1	42	83	87	80	93	1		0	0	0	1	72	0	0	0	1
1	59			4/89	5/89	1	1	1	1	0	56	92	93	93	93	0	88	0	1	0	1	61	0	94	0	1
0	90			8/89	10/89	1	0	1	0	0	69	100	0	83	0	0	87	0	1	0	1	58	0	66/72	0	8
1	61			2/89	4/89	1	1	1	1	1	44	83	80	100	87	93	89	0	1	0	1	58	0	1	0	1
1	62			2/89	4/89	0	1	1	0	1	58	0	1	1	0	1		0	1	0	1	52	0	1	0	1
1	63			9/89	9/89	0	0	0	0	1	82	0	0	0	0	1		0	0	0	0	88	0	0	0	0
0	64			8/89	9/89	1	1	1	0	1	44	75	87	87	0	92	82	0	1	0	1	72	0	89	0	8
1	65			5/89	5/89	0	0	1	0	0	78	0	0	1	0	0		0	1	0	1	72	0	1	0	1
1	66			2/89	2/89	1	1	1	1	1	38	1	1	1	1	1		0	1	1	1	19	0	1	1	1
1	67			9/89	10/89	0	0	1	0	1	62	0	0	94	0	93	91	0	1	1	1	28	0	1	1	1
0	68			2/89	2/89	1	0	0	0	0	73	83	0	0	0	0	77	0	1	0	1	67	0	100	0	8
1	69			5/89	5/89	1	1	1	1	1	29	1	1	1	1	1		0	1	1	1	47	0	1	1	1
1	70			7/89	10/89	1	1	1	0	0	55	1	1	1	0	0		0	1	0	1	61	0	100	0	1
0	71			9/89	9/89	1	1	1	0	0	62	100	74	87	0	0	82	0	0	0	1	75	0	0	0	1
1	72			9/89	9/89	0	1	0	0	0	80	0	1	0	0	0		0	0	0	1	64	0	0	0	1
1	73			5/89	5/89	0	1	1	0	1	49	0	1	1	0	1		0	1	0	1	56	0	1	0	1
1	74			8/89	8/89	0	1	0	0	1	62	0	1	0	0	1		0	1	1	1	58	0	1	1	1
0	75			3/89	4/89	0	1	0	0	1	62	0	87	0	0	93	88	0	0	0	1	69	0	0	0	9
1	76			7/89	7/89	1	1	1	1	1		1	1	1	1	1		1	1	1	1		1	1	1	1

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PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	77			5/89	5/89	0	1	1	0	0	69	0	1	1	0	0		0	0	0	1	78	0	0	0	1
1	78			9/89	9/89	1	1	0	0	1	64	1	1	0	0	1		0	1	0	1	52	0	1	1	1
1	79			10/89	10/89													0	1	1	1	39	0	1	1	1
0	80			5/89	5/89	0	0	0	0	0	80	0	0	0	0	0	NA	0	0	0	0	92	0	0	0	0
1	81			3/89	1/90	1	0	1	0	1	47	100	0	1	0	1		0	1	0	1	67	0	1	0	1
0	82			3/89	3/89	0	0	0	0	0	84	0	0	0	0	0	NA	0	0	0	0	86	0	0	0	0
1	83			3/89	3/89	T	T0	T0	0	0	71	1	0	T0	T0	T0		0	0	0	0	86	0	0	0	0
0	84			2/89	3/89	0	1	0	0	1	69	0	87	0	0	10	86	0	0	0	1	78	0	0	0	9
1	85			9/89	12/89	1	1	1	1	1		1	1	1	1	1		1	1	1	1	42	0	1	1	1
1	86			5/89	5/89	1	1	1	1	1	56	1	1	1	1	1		0	1	0	1	72	0	1	0	1
1	87			5/89	5/89	0	0	1	0	0	73	0	0	1	0	0		0	0	0	1	75	0	0	0	1
1	88			5/89	5/89	0	0	1	0	0	82	0	0	1	0	0		0	0	0	0	92	0	0	0	0
1	89			9/89	9/89	1	1	1	1	1	53	1	1	1	1	1		0	1	1	1	44	0	1	1	1
1	90			5/89	5/89	0	1	1	0	0	64	0	1	1	0	0		0	1	0	1	61	0	1	0	1
1	91			5/89	5/89	0	0	0	0	0	84	0	0	0	0	0	NA	0	1	0	1	78	0	1	0	1
1	92			5/89	5/89	0	1	0	0	0	71	0	1	0	0	0		0	1	0	1	64	0	1	0	1
1	93			5/89	5/89	1	1	1	1	0	58	92	93	93	73	0	84	0	1	0	1	78	0	89	0	1
1	94			5/89	5/89	1	1	1	1	1	18	1	1	1	1	1		0	1	1	1	42	0	1	1	1
1	95			9/89	9/89																					
1	96			5/89	5/89	0	0	1	0	0	84	0	0	1	0	0		0	0	0	0	94	0	0	0	0
0	97			7/89	7/89	0	1	0	0	0	77	0	80	0	0	0	96	0	0	0	0	91	0	0	0	0
0	98			2/89	4/89	0	0	0	0	1	73	0	0	0	0	93	81	0	0	0	1	83	0	0	0	7
0	99			2/88	10/89	1	1	1	0	1	60	92	80	67/100	0	80	90	0	1	0	1	58	0	56/44/10	0	6
1	100			3/89	5/89	1	1	1	1	1	27	100	80	20/80	0	67		1	1	1	1	25	1	1	1	1
1	101			5/89	11/89	1	1	1	0	1	49	92	100	93	0	93	93	0	1	0	1	81	0	100	0	1
1	102			10/88	10/88	1	1	1	0	1	51	1	100	0	1	1		0	1	0	1	72	0	100	0	1
1	103			8/89	9/89	1	0	1	1	1	44	1	0	1	1	1		1	1	1	1	44	1	1	1	1
1	104			9/89	9/89	1	0	1	0	1	60	1	0	1	0	1		0	0	0	1	72	0	0	0	1
1	105			5/89	5/89	0	0	0	0	0	73	0	0	0	0	0	NA	0	1	0	1	67	0	1	0	1
1	106			9/89	9/89	1	1	1	1	1	18	1	1	1	1	1		0	1	1	1	67	0	1	1	1
1	107			9/89	2/90	1	1	1	0	0	56	83	93	87	1	1		0	1	0	1	52	0	1	0	1
0	108			3/88	10/88	1	1	1	1	1	29	83	80	87	84/1	87	83	0	1	1	1	36	0	87	83	1
1	109			9/89	9/89	0	0	1	0	0	78	0	0	1	0	0		0	1	0	1	64	0	1	0	1
1	110			4/89	5/89	0	1	1	0	1	67	0	93	100	0	93	91	0	1	0	1	72	0	1	0	1
1	111			8/89	8/89	0	0	0	0	1	73	0	0	0	0	100	93	0	1	0	1	58	0	1	0	1
0	112			2/89	3/89	0	1	0	0	1	73	0	93	0	0	87	90	0	1	0	0	81	0	94	0	0
0	113			4/89	8/89	0	0	1	0	1	73	0	0	93	0	93	93	0	0	0	1	83	0	0	0	1
1	114			5/89	5/89	1	1	0	0	1	89	1	1	0	0	1		0	0	0	0	89	0	0	0	0

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0	115			5/89	5/89	0	0	0	0	0	84	0	0	0	0	0	NA	0	0	0	0	92	0	0	0	0
1	116			10/88	10/88	1	1	1	0	1	58	1	1	1	0	1		0	1	0	1	58	0	1	0	1
1	117			5/89	5/89	0	0	0	0	0	82	0	0	0	0	0	NA	0	0	0	1	86	0	0	0	1
1	118			10/89	10/89	1	1	1	1	1	NO DATA	1	1	1	1	1		0	1	0	1	58	0	1	0	1
1	119			10/89	10/89	1	1	1	1	1	26	1	1	1	1	1		1	1	1	1	39	1	1	1	1
0	120			8/88	10/88	1	1	0	0	1	82	100	87	0	0	93	93	0	1	0	1	75	0	94	0	7
0	121			9/89	9/89	1	0	0	0	0	82	92	0	0	0	0	92	0	0	0	0	86	0	0	0	0
0	122			8/89	9/89	0	0	0	0	0	81	0	0	0	0	0	NA	0	0	0	1	81	0	0	0	8
1	123			9/89	9/89	1	1	1	0	1	40	1	1	1	0	1		0	1	0	1	52	0	1	0	1
1	124			9/89	9/89	1	1	1	0	1	38	1	1	1	0	1		1	1	0	1	47	1	1	0	1
1	125			5/89	5/89	0	1	0	0	1	58	0	1	0	1	1		0	0	0	1	75	0	0	0	1
1	126			1/90	1/90	0	0	1	0	0	76	0	0	1	0	0		0	0	0	0	96	0	0	0	0
1	127			2/90		0	0	1	0	0	76	0	0	100	0	0	87	0	0	0	0	91	0	0	0	0
1	128			5/89	5/89	1	1	1	0	1	53	1	1	1	0	1		0	0	0	1	69	0	0	0	1
1	129			2/90		1	1	1	1	1		1	1	1	1	1		0	1	0	1		0	1	0	1
1	130			5/89	5/89	1	0	1	0	1	56	1	0	1	0	1		0	1	0	1	58	0	1	0	1
1	131			10/88	10/88	1	1	1	0	1	60	83	1	1	0	1		0	1	1	1	67	0	1	1	1
0	132			2/89	3/89	0	1	1	0	0	71	0	93	100	0	0	93	0	0	0	1	81	0	0	0	9
0	133			4/89	4/89	0	0	0	0	0	87	0	0	0	0	0	NA	0	0	0	1	83	0	0	0	7
1	134			5/89	5/89	1	1	1	0	1	58	100	1	1	0	1		0	0	0	0	94	0	0	0	0
1	135			5/89	5/89	0	0	0	0	1	73	0	0	0	0	1		0	0	0	1	75	0	0	0	1
1	136			5/89	5/89	1	1	1	0	1	62	1	1	1	0	1		0	1	0	0	83	0	1	0	0
1	137			5/89	5/89	1	1	1	1	1	24	1	1	1	1	1		0	1	1	1	44	0	1	1	1
1	138			1/90	1/90	0	1	0	0	0	78	0	100	0	0	0	85	0	1	0	1	69	0	100	0	1
1	139			3/90	3/90	0	1	1	0	1	69	0	1	1	0	1		0	1	0	1	62	0	1	0	1
0	140			5/89	5/89	0	0	0	0	0	82	0	0	0	0	0	NA	0	0	0	0	89	0	0	0	0
1	141			8/89	8/89	1	1	0	0	0	69	100	93	0	0	0	90	0	1	0	1	72	0	100	0	1
1	142			5/89	5/89	0	1	1	0	1	60	0	1	1	0	1		0	1	0	1	67	0	1	0	0
0	143			5/89	11/89	0	0	0	0	1	82	0	0	0	0	80	92	0	0	0	0	92	0	0	0	0
1	144			5/89	5/89	1	0	1	0	0	78	67	0	1	0	0		0	1	0	1	64	0	1	0	1
1	145			5/89	5/89	1	1	1	0	1	62	1	1	1	0	1		0	1	1	1	NO DATA	0	1	1	1
1	146			9/89	2/90	1	1	0	0	1	49	92	80	0	0	80	81	0	1	0	1	58	0	1	0	1
1	147			9/89	9/89	1	1	0	0	1	47	1	1	0	0	1		1	1	1	1	25	1	1	1	1
1	148			9/89	9/89	0	1	1	0	1	56	0	1	1	0	1		0	1	0	1	67	0	1	0	1
0	149			11/87	2/89	1	0	0	0	1	73	100	0	0	0	80	83	0	1	0	1	58	0	44,61,94	0	4
1	150			9/89	1/90	1	1	1	1	0	47	67/87	67/80	87	80	0	77	0	0	1	1	58	0	0	1	1
1	151			8/89	10/89	0	0	1	0	0	71	0	0	93	1	1	85	0	1	0	1	64	0	94	0	1
1	152			10/88	10/88	1	1	1	0	1	53	92	1	1	0	1		0	1	0	1	67	0	1	0	1

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1	153			7/87	4/89	1	0	1	1	1	56	92	0	100	1	1		0	1	0	1	69	0	100	0	9
1	154			5/89	5/89	0	0	0	0	0	78	0	0	0	0	0	NA	0	1	0	1	51	0	1	0	1
1	155			7/89	7/89	0	O	O	O	O	82	0	0	0	0	0	NA	0	1	0	1	80	0	1	0	1
1	156			5/89	5/89	0	0	1	0	1	73	0	0	1	0	1		0	0	0	0	86	0	0	0	0
0	157			11/87	2/89	0	0	0	0	1	76	0	0	0	0	100	89	0	1	0	0	86	0	100	0	0
1	1			10/89							82											79				
1	2			10/89							82											76				
1	3			10/89							85											53				
1	4			10/89							55											44				
1	5			10/89							54											36				
1	6			10/89							62											33				
1	7			10/89							38											56				
1	8			10/89							72											64				
1	9			10/89							31											33				
1	10			10/89							55											46				
1	11			10/89							88											92				
1	12			10/89							84											58				
1	13			10/89							54											50				
1	14			10/89							91											70				
1	15			10/89							74											54				
1	16			10/89							75											62				
1	17			10/89							82											60				
1	18			10/89							74											54				
1	19			10/89							72											38				
1	20			10/89							48											57				
1	21			10/89							61											41				
1	22			10/89							61											47				
1	23			10/89							68											57				
1	24			10/89							90											79				
1	25			10/89							32											34				
1	26			10/89							61											70				
1	27			10/89							61											56				
1	28			10/89							77											77				
1	29			10/89							82											70				
1	30			10/89							82											70				
1	31			10/89							58											47				

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1	32			10/89							68											64				
1	33			10/89							43											35				
1	34			10/89							90											85				
1	35			10/89							43											31				
1	36			10/89							73											65				
1	37			10/89							48											46				
1	38			10/89							90											46				
1	39			10/89							73											53				
1	40			10/89							53											51				
1	41			10/89							63											65				
1	42			10/89							55											41				
1	43			10/89							47											50				
1	44			10/89							60											67				
1	45			10/89							50											54				
1	46			10/89							82											79				
1	47			10/89							58											44				
1	48			10/89							54											58				
1	49			10/89							72											53				
1	50			10/89							54											47				
1	51			10/89							69											56				
1	52			10/89							90											86				
1	53			10/89							68											66				
1	54			10/89							68											78				
1	55			10/89							79											70				
1	56			10/89							69											51				
1	57			10/89							81											85				
1	58			10/89							55											65				
1	59			10/89							40											46				
1	60			10/89							82											60				
1	61			10/89							75											62				
1	62			10/89							49											43				
1	63			10/89							80											41				
1	64			10/89							77											56				
1	65			10/89							75											48				
1	66			10/89							75											67				
1	67			10/89							88											88				
1	68			10/89							84											61				
1	69			10/89							63											39				

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PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	70			10/89							78											70				
1	71			10/89							91											47				
1	72			10/89							41											47				
1	73			10/89							87											70				
1	74			10/89							29											46				
1	75			10/89							58											39				
1	76			10/89							58											77				
1	77			10/89							31											27				
1	78			10/89							81											59				
1	79			10/89							69											51				
1	80			10/89							38											33				
1	81			10/89							50											50				
1	82			10/89							94											76				
1	83			10/89							47											41				
1	84			10/89							77											68				
1	85			10/89							53											47				
1	86			10/89							84											75				
1	87			10/89							45											43				
1	88			10/89							96											81				
1	89			10/89							80											72				
1	90			10/89							52											44				
1	91			10/89							45											43				
1	92			10/89							82											58				
1	93			10/89							72											64				
1	94			10/89							89											61				
1	95			10/89							81											36				
1	96			10/89							48											36				
1	97			10/89							41											56				
1	98			10/89							48											43				
1	99			10/89							92											87				
1	100			10/89							48											54				
1	101			10/89							58											44				
1	102			10/89							43											44				
1	103			10/89							48											48				
1	104			10/89							71											51				
1	105			10/89							50											41				
1	106			10/89							78											62				
1	107			10/89							24											21				

March 26, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	108			10/89							58											41				
1	109			10/89							82											75				
1	110			10/89							84											84				
1	111			10/89							55											47				
1	112			10/89							34											33				
1	113			10/89							32											38				
1	114			10/89							63											43				
1	115			10/89							72											67				
1	116			10/89							92											78				
1	117			10/89							23											20				
1	130			10/89							61											47				
1	119			10/89							68											60				
1	120			10/89							92											91				
1	121			10/89							49											31				
1	122			10/89							85											53				
1	123			10/89							55											46				
1	124			10/89							57											53				
1	125			10/89							50											38				
1	126			10/89							55											43				
1	127			10/89							55											75				
1	128			10/89							49											51				
1	129			10/89							38											41				
1	130			10/89							68											70				
1	131			10/89							87											90				
1	132			10/89							50											54				
1	133			10/89							34											46				
1	134			10/89							43											35				
1	135			10/89							71											54				
1	136			10/89							68											47				
1	137			10/89							68											58				
1	138			10/89							23											27				
1	139			10/89							50											31				
1	140			10/89							37											39				
1	141			10/89							84											84				
1	142			10/89							61											46				
1	143			10/89							51											58				
1	144			10/89							84											78				
1	145			10/89							28											39				

March 26, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	146			10/89							79											89				
1	147			10/89							34											50				
1	148			10/89							45											31				
1	149			10/89							81											39				
1	150			10/89							48											60				
1	151			10/89							78											82				
1	152			10/89							85											84				
1	153			10/89							77											84				
1	154			10/89							40											47				
1	155			10/89							40											44				
1	156			10/89							65											58				
1	157			10/89							82											77				
1	158			10/89							54											43				
1	159			10/89							51											47				
1	160			10/89							71											60				
1	161			10/89							47											44				
1	162			10/89							91											79				
1	163			10/89							47											39				
1	164			10/89							60											53				
1	165			10/89							66											58				
1	166			10/89							86											73				
1	167			10/89							92											96				
1	168			10/89							69											54				
1	169			10/89							38											36				
1	170			10/89							48											43				
1	171			10/89							38											27				
1	172			10/89							92											87				
1	173			10/89							50											41				
1	174			10/89							58											27				
1	175			10/89							64											84				
1	176			10/89							82											51				
1	177			10/89							79											56				
1	178			10/89							57											58				
1	179			10/89							58											50				
1	180			10/89							71											51				
1	181			10/89							34											35				
1	182			10/89							48											34				
1	183			10/89							66											54				

March 26, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	184			10/89							91											84				
1	185			10/89							71											66				
1	186			10/89							81											71				
1	187			10/89							55											47				
1	188			10/89							49											35				
1	189			10/89							68											47				
1	190			10/89							40											38				
1	191			10/89							48											35				
1	192			10/89							55											44				
1	193			10/89							69											79				
1	194			10/89							79											56				
1	195			10/89							43											38				
1	196			10/89							71											60				
1	197			10/89							71											73				
1	198			10/89							69											54				
1	199			10/89							38											30				
1	200			10/89							82											56				
1	201			10/89							60											43				
1	202			10/89							26											19				
1	203			10/89							45											47				
1	204			10/89							88											81				
1	205			10/89							48											27				
1	206			10/89							68											47				
1	207			10/89							38											46				
1	208			10/89							48											53				
1	209			10/89							75											47				
1	210			10/89							34											38				
1	211			10/89							50											47				
1	212			10/89							66											43				
1	213			10/89							64											44				
1	214			10/89							42											29				
1	215			10/89							25											11				
1	216			10/89							29											34				
1	217			10/89							65											54				
1	218			10/89							64											58				
1	219			10/89							77											65				
1	220			10/89							45											31				
1	212			10/89							68											67				

March 28, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	222			10/89							42											41				
1	223			10/89							41											26				
1	224			10/89							45											39				
1	225			10/89							61											60				
1	226			10/89							61											38				
1	227			10/89							78											50				
1	228			10/89							34											6				
		GSC																								
1	1			10/89	12/6						NO DATA											46				
1	2			9/89	10/16						NODATA											54				
1	3			9/89	10/89						NO DATA											NO DATA				
1	4			9/89	11/9						52											31				
1	5			9/89	11/16						NO DATA											NO DATA				
1	6			9/89	12/11						93											88				
1	7			9/89	9/89						NO DATA											NO DATA				
1	8			9/89	11/1						59											NO DATA				
1	9			9/89	12/7						76											59				
1	10			9/89	10/89						68											72				
1	11			9/89	12/5						NO DATA											NO DATA				
1	12			9/89	9/89						NO DATA											NO DATA				
1	13			9/89	11/16						75											55				
1	14			9/89	10/24						71											48				
1	15			9/89	12/6						75											56				
1	16			9/89	12/4						69											56				
		JTPA FALL 89/90																								
1	1		—	9/89	2/90						84						96					91				
1	2		—	9/89	2/90						74						82					64				
1	3		—	9/89	2/90						69						94					57				
1	4		—	9/89	2/90						56						94					39				
1	5		—	9/89	2/90						76						93					50				
1	6		—	9/89	2/90						78						87					63				
1	7		—	9/89	2/90						85						91					74				
1	8		—	9/89	2/90						45						83					33				
1	9		—	9/89	2/90						81						86					53				
1	10		—	9/89	2/90						81						91					49				
1	11		—	9/89	2/90						69						81					50				

March 28, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	12	-		9/89	2/90						50						74					45				
1	13	-		9/89	2/90						57						91					78				
1	14	-		9/89	2/90						77						83					66				
1	15	-		9/89	2/90						69						83					64				
1	16	-		9/89	2/90						61						89					51				
1	17	-		9/89	2/90						47						83					51				
1	18	-		9/89	2/90						59						82					54				
1	19	-		9/89	2/90						85						96					79				
1	20	-		9/89	2/90						86						88					58				
1	21	-		9/89	2/90						73						80					79				
1	22	-		9/89	2/90						73						84					78				
1	23	-		9/89	2/90						94						97					76				
1	24			9/89	2/90						44						80					45				
1	25	-		9/89	2/90						69						83					59				
1	26	-		9/89	2/90						59						78					42				
1	27	-		9/89	2/90						13						72					37				
1	28	-		9/89	2/90						65						85					41				
1	29	-		9/89	2/90						91						100					81				
1	30	-		9/89	2/90						39						52					28				
1	31	-		9/89	2/90						80						91					74				
1	32	-		9/89	2/90						59						83					67				
1	33			9/89	2/90						61						77					55				
		JTPA ALTERNATES FALL 89																								
1	1			10/89	11/1						NO DATA															
1	2			10/89	10/89						78															
1	3			10/89	10/89						72															
		JTPA PAST PARTICIPANTS																								
1	1			10/89	10/89						73											73				
1	2			10/89	10/89						69											81				
1	3			10/89	10/89						NO DATA											86				
1	4			10/89	10/89						NO DATA											NO DATA				
1	5			10/89	11/89						77											58				
1	6			10/89	10/89						62											68				
1	7			10/89	10/89						49											38				
1	8			10/89	10/89						85											82				

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USOE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
		JTPA FALL 88																								
0	1			10/88	2/89						69						80					81				
0	2			10/88	2/89						65						83					51				
0	3			10/88	2/89						44						72					46				
0	4			10/88	2/89						30						46					25				
0	5			10/88	2/89						45						65					59				
0	6			10/88	2/89						74						86					56				
0	7			10/88	2/89						61						78					59				
0	8			10/88	2/89						63						78					50				
0	9			10/88	2/89						61						78					48				
0	10			10/88	2/89						85						94					70				
0	11			10/88	2/89						86						95					73				
0	12			10/88	2/89						57						76					22				
0	13			10/88	2/89						75						84					56				
0	14			10/88	2/89						65						80					42				
0	15			10/88	2/89						49						80					44				
0	16			10/88	2/89						74						86					64				
0	17			10/88	2/89						77						87					56				
0	18			10/88	2/89						62						81					68				
0	19			10/88	2/89						70						86					51				
0	20			10/88	2/89						87						92					70				
0	21			10/88	2/89						64						85					48				
0	22			10/88	2/89						69						69					24				
0	23			10/88	2/89						69						82					63				
0	24			10/88	2/89						51						61					36				
0	25			10/88	2/89						50						64					33				
0	26			10/88	2/89						49						74					36				
0	27			10/88	2/89						56						74					41				
0	28			10/88	2/89						69						78					53				
0	29			10/88	2/89						70						89					62				
0	30			10/88	2/89						44						60					31				
0	31			10/88	2/89						64						73					54				
0	32			10/88	2/89						85						91					62				
0	33			10/88	2/89						77						86					81				
0	34			10/88	2/89						71						86					51				
0	35			10/88	2/89						79						97					66				
0	36			10/88	2/89						59						75					75				

March 26, 1990

USDE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
		JTPA SPRING 89																								
0	1			2/89	6/89						77						93					54				
0	2			2/89	6/89						85						94					87				
0	3			2/89	6/89						87						90					84				
0	4			2/89	6/89						80						91					84				
0	5			2/89	6/89						55						81					47				
0	6			2/89	6/89						56						88					42				
0	7			2/89	6/89						91						99					78				
0	8			2/89	6/89						69						82					62				
0	9			2/89	6/89						59						[illegible]					46				
0	10			2/89	6/89						58						89					34				
0	11			2/89	6/89						76						90					77				
0	12			2/89	6/89						68						82					65				
0	13			2/89	6/89						78						99					81				
0	14			2/89	6/89						97						97					92				
0	15			2/89	6/89						44						79					37				
0	16			2/89	6/89						82						95					72				
0	17			2/89	6/89						63						79					48				
0	18			2/89	6/89						69						88					76				
0	19			2/89	6/89						75						91					76				
0	20			2/89	6/89						56						71					69				
0	21			2/89	6/89						77						92					68				
0	22			2/89	6/89						62						98					62				
0	23			2/89	6/89						53						79					48				
0	24			2/89	6/89						87						95					81				
0	25			2/89	6/89						79						94					75				
0	26			2/89	6/89						50						87					36				
0	27			2/89	6/89						78						84					81				
0	28			2/89	6/89						85						94					81				
0	29			2/89	6/89						76						92					52				
0	30			2/89	6/89						73						94					93				
0	31			2/89	6/89						84						94					81				
0	32			2/89	6/89						80						91					52				
0	33			2/89	6/89						54						81					88				
0	34			2/89	6/89						85						[illegible]					57				
0	35			2/89	6/89						75						89					60				

March 26, 1990

USOE ED DATA

PS	NO	LAST & FIRST NAME	EMP NO	ENTRY DATE	LAST LAB DATE	R1	R2	R3	R4	R5	READ PRE	CR1	CR2	CR3	CR4	CR5	READ POST	M1	M2	M3	M4	MATH PRE	CM1	CM2	CM3	C
1	1			1/90																						
		TOTAL PARTICIPANTS 517																								

March 27, 1990

APPENDIX B

Inventory of Hardware and Software

SUPPLIES 009 ACCOUNT/ROSE'S DISK

QUANTITY	ITEM	DESCRIPTION	IDENTIFICATION NUMBER	PRICE	DATE OF PURCHASE	SUPPLIER	CONDITION	NEX
	COLOR MONITOR	TOUCH SCREEN	00015655	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00015659	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00015660	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061197 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061198 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061199 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015498				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015499				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015500				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015511				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015512				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015513				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015514				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015515				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015516				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015517				NEW	
	CPU (A)	APPLE 2 GS	00015488	16,545.56	1/9/89	APPLE COMPUTER	NEW	
	CPU (A)	APPLE 2 GS	00015489				NEW	
	CPU (A)	APPLE 2 GS	00015490				NEW	
	CPU (A)	APPLE 2 GS	00015491				NEW	
	CPU (A)	APPLE 2 GS	00015492				NEW	
	CPU (A)	APPLE 2 GS	00015493				NEW	
	CPU (A)	APPLE 2 GS	00015494				NEW	
	CPU (A)	APPLE 2 GS	00015495				NEW	
	CPU (A)	APPLE 2 GS	00015496				NEW	
	CPU (A)	APPLE 2 GS	00015497				NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015653 GRINNELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015623 GRINELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015631	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015632 GRINNELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015630	1437.00	1/23/89	IBM	NEW	
3	FILE CABINET	5 DRAWER/BEIGE		612.00	5/9/89	GENERAL INSTITUTION	NEW	
	HARD DISC DRIVE	CORVUS OMNI DRIVE	NO NUMBER	12,842.00	1/12/89	KNOWLEDGE TECH CORP	NEW	
6	HEADPHONES/AUDIO BOX	TELEX	NO NUMBER	64.50	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015668 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015669	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015670	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015671 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015672 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015673	1690.00	7/17/89	APPLIED LEARNING	NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015569 GRINNELL	754.00			NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015570	754.00	2/6/89	VIDEO SUPPLY SALES	NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015572	754.00	2/6/89	VIDEO SUPPLY SALES	NEW	
1	MONITOR/PLAYER VHS	PANASONIC AG 500	00015571	754.00	2/6/86	VIDEO SUPPLE SALES	NEW	
	PRINTER	APPLE IMAGEWRITER 11	00015518				NEW	

ALTERED DLP 5/21/90- STILL CONTAINS SOME ERRORS

JNC/GRINNEL LAB INVENTORY

QUANTITY	ITEM	DESCRIPTION	IDENTIFICATION NUMBER	PRICE	DATE OF PURCHASE	SUPPLIER	CONDITION	NEXT MAIN
*	BOOKCASE	4 SHELF/PAINTED WOOD						
*	CASSETTE RECORDER	CENTENNIAL PR-908						
*8	CHAIR	TAN LEATHERETTE						
	COLOR MONITOR	TOUCH SCREEN	00015655	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00015659	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00015660	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061197 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061198 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061199 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015498				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015499				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015500				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015511				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015512				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015513				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015514				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015515				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015516				NEW	
	COLOR MONITOR (A)	APPLE 2 GS	00015517				NEW	
*5	COLOR MONITOR (A)	APPLE 2 GS	GRINNEL					
*5	COLOR MONITOR (A)	APPLE 2 GS	JNC					
*	COMPUTER CAROL	3 STATIONS						
*	COMPUTER CAROL	WOOD/PAINTED 1 STATI						
*	COMPUTER CAROL	WOOD/PAINTED 2 STATI						
*	COMPUTER CAROL/LONG	4 STATIONS						
*12	CONFERENCE CHAIR	CHOCOLATE						
*	CONFERENCE CHAIR	SWIVEL						
*	CONFERENCE TABLE	WOOD/LARGE						
	CPU (A)	APPLE 2 GS	00015488	16,545.56	1/9/89	APPLE COMPUTER	NEW	
	CPU (A)	APPLE 2 GS	00015489				NEW	
	CPU (A)	APPLE 2 GS	00015490				NEW	
	CPU (A)	APPLE 2 GS	00015491				NEW	
	CPU (A)	APPLE 2 GS	00015492				NEW	
	CPU (A)	APPLE 2 GS	00015493				NEW	
	CPU (A)	APPLE 2 GS	00015494				NEW	
	CPU (A)	APPLE 2 GS	00015495				NEW	
	CPU (A)	APPLE 2 GS	00015496				NEW	
	CPU (A)	APPLE 2 GS	00015497				NEW	
*5	CPU (A)	APPLE 2 GS	JNC					
*5	CPU (A)	APPLE 2 GS	GRINNEL					
*6	CPU (A)	APPLE IIe						
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015653 GRINNELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015623 GRINELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015631	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015632 GRINNELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015630	1437.00	1/23/89	IBM	NEW	
*	CUPBOARD	WOOD/PAINTED						
*	DISC DRIVE IBM	IBM 4869 (5 1/4)						
*10	DISK DRIVE 3 1/2 (A)	APPLE 2 GS						
*6	DISK DRIVE (A) DOUBLE	APPLE IIe						
*10	DISK DRIVE 5 1/4 (A)	APPLE 2 GS						

JNC/GRINNEL LAB INVENTORY

QUANTITY	ITEM	DESCRIPTION	IDENTIFICATION NUMBER	PRICE	DATE OF PURCHASE	SUPPLIER	CONDITION	NEXT MAIN
3	FILE CABINET	5 DRAWER/BEIGE		612.00	5/9/89	GENERAL INSTITUTION	NEW	
*	FILE CABINET 4 DR.	CREAM/METAL						
*	FILE CABINET 4 DR.	CREAM/METAL						
*	FILE CABINET 4 DR.	GREEN/METAL						
*	FILE CUPBOARD	WOOD/PAINTED						
*	FOLDING TABLE	10' X 3.5'						
*3	FOLDING TABLE	8' X 2.5'						
*	GLOBE							
	HARD DISC DRIVE	CORVUS OMNI DRIVE	NO NUMBER	12,842.00	1/12/89	KNOWLEDGE TECH CORP.	NEW	
6	HEADPHONES/AUDIO BOX	TELEX	NO NUMBER	64.50	1/17/89	APPLIED LEARNING	NEW	
*15	KEYBOARD	APPLE 2 GS	JNC					
*5	KEYBOARD	APPLE 2 GS	GRINNEL					
*4	KEYBOARD IBM	MODEL M						
	LASER DISC PLAYER	PIONEER LDV6010A	00015668 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015669	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015670	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015671 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015672 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV 60104	00015673	1690.00	7/17/89	APPLIED LEARNING	NEW	
*8	MONITOR (A) MONOCHROME	APPLE IIe						
	MONITOR PLAYER VHS	PANASONIC AG 500	00015569 GRINNELL	754.00			NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015570	754.00	2/6/89	VIDEO SUPPLY SALES	NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015572	754.00	2/6/89	VIDEO SUPPLY SALES	NEW	
1	MONITOR/PLAYER VHS	PANASONIC AG 500	00015571	754.00	2/6/86	VIDEO SUPPLE SALES	NEW	
*15	MOUSE	APPLE 2 GS	JNC					
*5	MOUSE	APPLE 2 GS	GRINNEL					
*13	MOUSE PADS							
*	PENCIL SHARPENER	ELECTRIC/BOSTON						
*2	POSTAL TABLE	W/OVERHEAD CUBBIES						
	PRINTER	APPLE IMAGEWRITER 111	00015518				NEW	
*	PRINTER	APPLE IMAGEWRITER	JNC/JTPA					
*	PRINTER	APPLE IMAGEWRITER II	GRINNEL					
*	PRINTER CUPBOARD	WOOD/PAINTED						
*	PRINTER IBM	PROPRINTER						
*	PRINTER TABLE	4 WHEELS						
*	READING ACCELERATOR	SHADOWSCOPE						
*4	SECTIONAL TABLE	TRAPIZOIDAL						
*	STUDY CAROL W/CHAIR							
*4	TYPEWRITER CHAIR	PINK FABRIC						
*14	TYPEWRITER CHAIR	BROWN ON WHEELS						

GRINNEL TRAINING CENTERV INVENTORY

QUANTITY	ITEM	DESCRIPTION	IDENTIFICATION NUMBER	PRICE	DATE OF PURCHASE	SUPPLIER	CONDITION	NEXT MAIN
	COLOR MONITOR	TOUCH SCREEN	00061197 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061198 GRINNELL	2637.00	1/23/89	IBM	NEW	
	COLOR MONITOR	TOUCH SCREEN	00061199 GRINNELL	2637.00	1/23/89	IBM	NEW	
*5	COLOR MONITOR (A)	APPLE 2 GS	GRINNEL					
*5	CPU (A)	APPLE 2 GS	GRINNEL					
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015[illegible]3 GRINNELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015623 GRINELL	1437.00	1/23/89	IBM	NEW	
	CPU/HARD DRIVE	IBM PS/2 MODEL 30	00015632 GRINNELL	1437.00	1/23/89	IBM	NEW	
*5	KEYBOARD	APPLE 2 GS	GRINNEL					
	LASER DISC PLAYER	PIONEER LDV6010A	00015668 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015671 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	LASER DISC PLAYER	PIONEER LDV6010A	00015672 GRINNELL	1690.00	1/17/89	APPLIED LEARNING	NEW	
	MONITOR PLAYER VHS	PANASONIC AG 500	00015569 GRINNELL	754.00			NEW	
*5	MOUSE	APPLE 2 GS	GRINNEL					
*	PRINTER	APPLE IMAGEWRITER II	GRINNEL					

NAME	PUBLISHER	MEDIUM	CURRICULUM
GED MATH TAPE 1 FLOYD 1988	COMEX SYSTEMS, INC	VHS VIDEO INSTRUCTION	MATH
GED MATH TAPE 2 FLOYD 1988	COMEX SYSTEMS, INC	VHS VIDEO INSTRUCTION	MATH
GED WRITING SKILLS: PART II THE ESSAY LEWIS 1988	COMEX SYSTEMS, INC	VHS VIDEO INSTRUCTION	WRITING
HOW TO USE WORD PERFECT 5	FLIPTRACK	AUDIO CASSETTE INSTRUCTIC	WORD PROCESSING
PACE LANGUAGE CABINET	PACE LEARNING SYSTEMS	SELF-PACED MODULES	LANGUAGE
PACE READING CABINET	PACE LEARNING SYSTEMS	SELF-PACED MODULES	READING
PACE MATH CABINET	PACE LEARNING SYSTEMS	SELF-PACED MODULES	MATH
STECK-VAUGHN MATERIALS	STECK-VAUGHN	SELF-PACED WORKBOOKS	ALL

LITERACY SOFTWARE

NAME	PUBLISHER	CURRICULUM	SYSTEM
ALGE-BLASTER	DAVIDSON & ASSOCIATES	MATH	APPLE
ALPHABETIC KEYBOARDING	SOUTH-WESTERN	KEYBOARDING	APPLE
APPLEWORKS	CLARIS	WRITING, BUSINESS	APPLE
FUNDAMENATAL STUDY SKILLS: MATH	APPLIED LEARNING	MATH	IBM INFOWINDOW
FUNDAMENATAL STUDY SKILLS: READING	APPLIED LEARNING	READING	IBM INFOWINDOW
GRAMMAR GREMLINS	DAVIDSON & ASSOCIATES	READING	APPLE
IDEAL LEARNING CURRICULUM	IDEAL LEARNING, INC	ALL	APPLE
MASTERTYPE	SCARBOROUGH	KEYBOARDING	APPLE
MATH BLASTER PLUS	DAVIDSON & ASSOCIATES	MATH	APPLE
MECC PRODUCTS	MECC	ALL	APPLE
PALS (PRINCIPLES OF THE ALPHABET LITERACY SYSTEM)	IBM	READING	IBM
READ 'N ROLL	DAVIDSON & ASSOCIATES	READING	APPLE
SMOOTH TALKER	FIRST BYTE	READING	APPLE
SPEED READER II	DAVIDSON & ASSOCIATES	READING	APPLE
SPELL IT	DAVIDSON & ASSOCIATES	READING	APPLE
TIMEOUT QUICKSPELL	BEAGLE BROTHERS	WRITING	APPLE
WORD ATTACK PLUS	DAVIDSON & ASSOCIATES	READING	APPLE
WORD PERFECT	WORD PERFECT CORP.	WRITING	IBM